



UNITED STATES PATENT AND TRADEMARK OFFICE

NC
UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/703,755	11/01/2000	Jay W. Grate	BAT D A	2097

7590 04/29/2004
JOHN M. BRADSHAW
WOODARD, EMHARDT, NAUGHTON, MORIARTY & MCNETT
BANK ONE CENTER
111 MONUMENT CIRCLE, SUITE 3700
INDIANAPOLIS,, IN 46204-5137

EXAMINER

LEE, SIN J

ART UNIT PAPER NUMBER

1752

DATE MAILED: 04/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/703,755

Applicant(s)

GRATE ET AL.

Examiner

Sin J. Lee

Art Unit

1752

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) See Continuation Sheet is/are pending in the application.
- 4a) Of the above claim(s) 6-8, 12-19, 25-31, 38-42, 44, 166, 168 and 169 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 204 and 215-221 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4, 9-11, 20-24, 43, 46, 48-50, 101, 103, 104, 106, 147-151, 153, 154, 202, 203, 205 and 212 is/are rejected.
- 7) ☒ Claim(s) 45, 103, 149, 208-211 and 213 is/are objected to.
- 8) ☒ Claim(s) See Continuation Sheet are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 November 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

Continuation of Disposition of Claims: Claims pending in the application are 1,2,4,6-31,38-46,48-50,101,103,104,106,147-151,153,154,166,168,169,202-205,208-213 and 215-221.

Continuation of Disposition of Claims: Claims subject to restriction and/or election requirement are 1,2,4,6-31,38-46,48-50,101,103,104,106,147-151,153,154,166,168,169,202-205,208-213 and 215-221.

DETAILED ACTION

1. Applicants canceled claims 206, 207, and 214.
2. Based on applicants' argument that it is apparent to a person of ordinary skill in the art that the term "chemically selective sorbent film" is used interchangeably in the present specification with the terms "sorbent polymer film" and "polymer", the previous rejections on claims 205, 214, and 216 under 35 U.S.C. 112, first paragraph are hereby withdrawn.
3. Based on applicants' argument, the previous rejection on claim 148 over Cavezzan et al'065 in view of Nelson et al'192 and the previous rejection on claim 203 over Cavezzan'065 in view of Oxman'886, Sachdev et al'693, and Nelson et al'192 are hereby withdrawn as there is no motivation to combine Nelson et al'192 (which teaches an optical fiber sensor) with the other references cited in this paragraph. However, present claims 148 and 203 are still being rejected under new grounds of rejection (see Paragraphs 5 and 8 below respectively).

Claim Objections

4. Claims 45, 103 and 149 are objected to because of the following informalities: on line 2 of claim 45, applicants need to change "dydromethyldimethylsiloxane" to --- dihydromethyldimethylsiloxane ---. On lines 10-11 of claim 103 and on lines 14-15 of claim 149, applicants recite "thereby decreasing the solubility of the exposed regions such that the unexposed region is more soluble in a solvent than the *unexposed* regions;". Applicants need to change "the unexposed regions;" to --- the exposed regions; --- . Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. Claims 1, 4, 9-11, 20-24, 43, 46, 103, 106, 147, 148, and 205 rejected under 35 U.S.C. 102(b) as being anticipated by Cavezzan et al (4,939,065).

Cavezzan teaches (col.1, lines 8-12. col.4, lines 15-38, Example 1) a UV-crosslinkable organopolysiloxane composition containing diorganopolysiloxane having at least 2 alkenyl unsaturation (*preferably vinyl* unsaturation), which can be located at the end of the polymer chain. As examples for the organic radical (as in diorgano group of diorganopolysiloxane), Cavezzan lists *methyl*, ethyl, phenyl and 3,3,3-tri-fluoropropyl radicals. Since there are only several examples given, one of ordinary skill in the art would immediately envisage a dimethylpolysiloxane having two vinyl unsaturation which are located at the end of the polymer chain as Cavezzan's diorganopolysiloxane component; besides, in Example 1, Cavezzan actually uses a polydimethylsiloxane polymer having dimethylvinylsiloxyl *end* groups (which is the polymer also used in present Example 1). Therefore, Cavezzan teaches present second precursor molecule of claims 1, 4, 9-11, 103, 106, and 205.

Cavezzan's organopolysiloxane composition also contains (col.3, line 37-62, col.4, lines 53-68, col.5, lines 1-6) a second component, an organohydropolysiloxane containing at least two hydrogen atoms bonded to a silicon atom wherein the SiH groups may be located within the polymer chain, and as one of only three examples, Cavezzan lists *polydimethylpolymethylhydrosiloxane copolymers* having trimethylsiloxyl end groups (*which indicates that the SiH groups are located not at the chain ends of the polymer but within the polymer chain*). Since there are only a few examples, one of

ordinary skill in the art would immediately envisage the polydimethylpolymethylhydrosiloxane copolymers having trimethylsiloxyl end groups (which is the polymer also used in present Example 1) as Cavezzan's second component. Therefore, the prior art teaches present first precursor molecule of claims 1, 20-24, 103, 106, and 205.

Cavezzan's organopolysiloxane composition finally contains a platinum catalyst (col.3, lines 37-62, col.5, lines 45-56). Therefore, the prior art teaches present photoactivatable catalyst of claims 1, 103, and 205.

Cavezzan teaches (col.3, lines 37-41) that his invention features, as a negative resist, a film-forming organopolysiloxane composition capable of being crosslinked by *hydrosilylation* in the presence of a catalyst derived from a platinum group metal. Cavezzan furthermore teaches (col.7, lines 59-68, col.8, lines 1-16, lines 42-50) that his substrate (e.g., silicon wafer) is coated with a uniform adherent film of his organopolysiloxane composition, and then the film formed is imagewise irradiated with UV radiation which will cause the exposed area to cure (*thereby decreasing the solubility of the exposed area as presently recited in claim 103*), while the unirradiated area remains soluble in organic solvents.

Since Cavezzan's polydimethylpolymethylhydrosiloxane copolymer having trimethylsiloxyl end groups teaches present first precursor molecule and Cavezzan's polydimethylsiloxane polymer having dimethylvinylsiloxyl end groups teaches present second precursor molecule, it is the Examiner's position that Cavezzan's film-forming organopolysiloxane composition that contains those components as well as the

Art Unit: 1752

platinum catalyst (present photoactivatable catalyst) will *inherently* be a chemically selective sorbent film when exposed to UV radiation and cured (or crosslinked) by hydrosilylation and will also inherently be a sorbent film of present claim 147 when exposed to UV radiation and cured (or crosslinked) by hydrosilylation. For the same reason, it is also the Examiner's position that Cavezzan's film-forming organopolysiloxane composition that contains those components as well as the platinum catalyst (present photoactivatable catalyst) will *inherently* be a chemical sensor (as in present claim 148) when exposed to UV radiation and cured (or crosslinked) by hydrosilylation.

With respect to present limitation "leaving the chemically selective sorbent film in place on the substrate *for subsequent use to selectively absorb a first chemical species to which the film is exposed;*", in Cavezzan's Example 1, the film formed (from his organopolysiloxane composition) onto the surface of the silicon wafer is exposed to UV irradiation and then developed. Since the exposed and developed film is left on the surface of the silicon wafer (at least until the etching of the substrate is over), the prior art teaches present limitation "leaving the chemically selective sorbent film in place on the substrate". The recitation "*for subsequent use to selectively absorb a first chemical species to which the film is exposed;*", has not been given patentable weight because the recitation merely recites the purpose of a process or the intended use of a structure.

Also, the recitation "wherein at least one of the first and second precursor molecule is selected *based upon its having a chemically interactive property that is retained after the hydrosilylation reactions, and that provides to the chemically selective*

Art Unit: 1752

solvent film a functionality whereby the film selectively absorbs the first chemical species more than a second chemical species" has not been given patentable weight because it merely recites a *reason for choosing* the present first and second precursor molecules. Since Cavezzan teaches present first precursor molecule and present second precursor molecule, it should not matter (for the purpose of determining patentability) whether those compounds are being chosen by Cavezzan for the same reason or not. Besides, since Cavezzan's polydimethylpolymethylhydrosiloxane copolymer having trimethylsiloxyl end groups teaches present first precursor molecule and Cavezzan's polydimethylsiloxane polymer having dimethylvinylsiloxyl end groups teaches present second precursor molecule, it is the Examiner's position that those compounds were *inherently* selected for the same reason as recited in present claims 1 and 103. Therefore, the prior art teaches present inventions of claims 1, 4, 9-11, 20-24, 43, 46, 103, 106, 147, and 205 (since Cavezzan teaches present composition and method of claim 205, it is the Examiner's position that the exposed and developed film of Cavezzan will inherently have a glass-to rubber transition temperature below the operating temperature of the film as presently recited in claim 205).

6. Claims 1, 2, 4, 9-11, 20-24, 43, 46, and 205 are rejected under 35 U.S.C. 102(b) as being anticipated by Oxman et al (5,145,886).

Oxman teaches (Example 1) a composition containing (i) a vinyl terminated polydimethylsiloxane which formula is shown in col.9, lines 30-36, (ii) a polydimethylpolymethylhydrosiloxane copolymer (wherein Si-H groups are located along the polymer chain) which formula is shown in col.9, lines 40-46, and (iii) a

Art Unit: 1752

photohydrosilation catalyst which is a Pt(II) beta-diketonate complexes. Therefore, the prior art teaches present second precursor molecule of claims 1, 4, 9-11, 205, present first precursor molecule of claims 1, 20-24, 205, and present photoactivatable catalyst of claims 1, 2, and 205. After applying his hydrosilation composition to a substrate, the coated substrate is exposed to radiation in order to be cured (see col.8, lines 11-18, lines 53-60). Since Oxman teaches present components and method of claim 1, it is the Examiner's position that Oxman's composition will *inherently* be a chemically selective sorbent film when exposed to radiation and cured by hydrosilation.

With respect to present limitation "leaving the chemically selective sorbent film in place on the substrate *for subsequent use to selectively absorb a first chemical species to which the film is exposed;*", since in Oxman, his composition, that is coated onto a substrate and is later exposed and cured, remains on the substrate, the prior art teaches present limitation "leaving the chemically selective sorbent film in place on the substrate". The recitation "*for subsequent use to selectively absorb a first chemical species to which the film is exposed;*", has not been given patentable weight because the recitation merely recites the purpose of a process or the intended use of a structure.

Also, the recitation "wherein at least one of the first and second precursor molecule is selected *based upon its having a chemically interactive property that is retained after the hydrosilylation reactions, and that provides to the chemically selective solvent film a functionality whereby the film selectively absorbs the first chemical species more than a second chemical species*" has not been given patentable weight because it merely recites a *reason for choosing* the present first and second precursor

molecules. Since Oxman teaches present first and second precursor molecules, it should not matter (for the purpose of determining patentability) whether those compounds are being chosen by Oxman for the same reason or not. Besides, since Oxman teaches present first and second precursor molecules, it is the Examiner's position that those compounds were *inherently* selected for the same reason as recited in present claim 1. Therefore, the prior art teaches present inventions of claims 1, 2, 4, 9-11, 20-24, 43, 46, and 205 (since Oxman teaches present composition and method of claim 205, it is the Examiner's position that the exposed and cured film of Oxman will inherently have a glass-to rubber transition temperature below the operating temperature of the film as presently recited in claim 205).

Claim Rejections - 35 USC § 103

7. Claims 2 and 104 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cavezzan et al (4,939,065) as applied to claims 1 and 103 above, and further in view of Oxman et al (5,145,886).

Cavezzan et al with respect to claims 1 and 103 are discussed above in Paragraph 5. Cavezzan does not teach present Pt(II) bis(beta-diketonates). Oxman teaches (col.3, lines 22-40) that when Pt(II) beta-diketonate complex is used as hydrosilation catalyst, the reaction composition will not react prematurely in the absence of actinic radiation, the reaction composition allows the cure of unusually thick section of material, and low levels of the catalyst can be used. In view of Oxman's teaching, it would have been obvious to one of ordinary skill in the art to use Pt(II) beta-diketonate complex as Cavezzan's hydrosilation catalyst in order to take those advantages of using

Art Unit: 1752

such catalyst as taught by Oxman. Therefore, Cavezzan in view of Oxman would render obvious present inventions of claims 2 and 104.

8. Claims 48-50, 101, 149-151, 153, 154, 202, 203, and 212 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cavezzan et al (4,939,065) in view of Oxman et al (5,145,886) and Sachdev et al (5,470,693).

Cavezzan is discussed above in Paragraph 5. Cavezzan teaches present inventions of claims 48, 149, and 212 except for the present step of cleaning (or modifying) the substrate and reacting a coupling agent with the surface of the substrate that appends to the surface reactive groups that can participate in hydrosilylation reactions. Oxman teaches (col.8, lines 53-67) that when a hydrosilation composition is applied to the surface of a solid substrate, it is often advantageous to prime the surface of the substrate to which the hydrosilation composition is to be applied to improve the adhesion of the composition to the substrate. Oxman furthermore states that many primers are described in the art and should be chosen on the basis of the substrate to be used. As discussed above in Paragraph 5, Cavezzan's substrate is a silicon wafer. Sachdev teaches plasma-cleaning of a silicon wafer and then treating it with a primer, gamma-aminopropyl-triethoxysilane (as an adhesion promoter). In view of the teachings of Oxman and Sachdev, it would have been obvious to one of ordinary skill in the art to clean Cavezzan's silicon wafer and then treat it with gamma-aminopropyl-*triethoxysilane* (present coupling agent compound of claims 50 and 151) before the hydrosilation composition is applied to the wafer so as to improve the adhesion of the hydrosilation composition to the silicon wafer as taught by Oxman and Sachdev.

Art Unit: 1752

Therefore, Cavezzan in view of Oxman and Sachdev would render obvious present inventions of claims 48-50, 101, 149-151, 154, 202, and 212 (since the gamma-aminopropyl-triethoxysilane is present coupling agent compound of claims 50 and 151, it is the Examiner's position that when one primes the surface of Cavezzan's silicon wafer with the gamma-aminopropyl-triethoxysilane, it will inherently append to the surface of the silicon wafer reactive groups that can participate in hydrosilylation reactions by reacting with the first precursor molecule, the second precursor molecule, or both of the precursor molecules as presently recited in claim 212).

With respect to present claim 203, Since Cavezzan teaches present first precursor molecule and present second precursor molecule, it is the Examiner's position that Cavezzan's film-forming organopolysiloxane composition that contains those components as well as the platinum catalyst (present photoactivatable catalyst) will *inherently* be a chemical sensor (as in present claim 203) when exposed to UV radiation and cured (or crosslinked) by hydrosilylation. Therefore, Cavezzan in view of Oxman and Sachdev would render obvious present invention of claim 203.

With respect to present claim 153, Cavezzan does not teach present Pt(II) bis (acetylacetonate). Oxman teaches (col.3, lines 22-40, colo.9, lines 49-51) that when Pt(II) beta-diketonate complex such as Pt(II) acetylacetonate is used as hydrosilation catalyst, the reaction composition will not react prematurely in the absence of actinic radiation, the reaction composition allows the cure of unusually thick sections of material, and low levels of the catalyst can be used. In view of Oxman's teaching, it would have been obvious to one of ordinary skill in the art to use Pt(II) acetylacetonate

Art Unit: 1752

as Cavezzan's hydrosilation catalyst in order to take those advantages of using such catalyst as taught by Oxman. Therefore, Cavezzan in view of Oxman and Sachdev would render obvious present invention of claim 153.

9. Claims 48-50, 101, and 212 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oxman et al (5,145,886) in view of Murai et al (4,243,718).

Oxman is discussed above in Paragraph 6. Oxman teaches (col.8, lines 53-60) that his substrate can be paper, cardboard, wood, cork, plastic (such as polyester, nylon, polycarbonate), fabric, metal, glass, or ceramic. Since there are only several choices, one of ordinary skill in the art would immediately envisage polyester as Oxman's substrate. Oxman furthermore teaches (col.8, lines 61-68, col.9, lines 1-2) that it is advantageous to prime the surface of a substrate to which his hydrosilation composition is to be applied to improve the adhesion of the composition to the substrate and that the epoxy-functional siloxane as taught in Murai et al is useful for priming the surface of plastic films such as polyester. As examples for the epoxy-functional siloxane, Murai teaches (col.2, lines 10-16) gamma-glycidoxypropyltrimethoxysilane, gamma-glycidoxypropyltriethoxysilane, and beta-(3,4-epoxycyclohexyl)ethyltrimethoxysilane (all of which are present trimethoxysilane coupling agent or present triethoxysilane coupling agent of claim 50). Also, in Example 1, Murai applies the primer composition containing the epoxy-functional siloxane to a substrate by brush after washing the substrate with 1,2,2-tri-fluoro-1,2,2-trichloroethane. In view of the teachings of Oxman and Murai, it would have been obvious to one of ordinary skill in the art to prime the surface of Oxman's polyester substrate with the epoxy-functional siloxane (present

trimethoxysilane and triethoxysilane coupling agent) as taught by Murai (after washing Oxman's substrate) in order to improve the adhesion of Oxman's composition to the polyester substrate. Therefore, Oxman in view of Murai would render obvious present inventions of claims 48-50, 101, and 212 (since Oxman in view of Murai teaches present coupling agent of claim 50, it is the Examiner's position that when one primes the surface of Oxman's polyester substrate with Murai's epoxy-functional siloxane, it will inherently append to the surface of the substrate reactive groups that can participate in hydrosilylation reactions by reacting with the first precursor molecule, the second precursor molecule, or both of the precursor molecules as presently cited in claim 212).

Allowable Subject Matter

10. Claim 45 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Neither of Cavezzan and Oxman teaches or suggests the use of hydromethyldimethylsiloxane having 25% of hydromethyl groups.

11. Claims 208-211 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. None of the cited prior arts teaches or suggests the step of providing the second composition on the substrate to provide the second chemically selective sorbent film.

12. Claim 213 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Those primers taught by Sachdev or Murai do

not contain a reactive group selected from the group consisting of a silicon hydride group, a carbon-carbon multiple bond, and each of a silicon hydride group and a carbon-carbon multiple bond as presently recited.

13. Claim 204 is allowed. None of the cited prior arts teaches or suggests the step of repeating the processes of imagewise exposure and development using new compositions at different locations (on a single substrate) each time as presently recited in claim 204.

14. Claims 215-220 are allowed for the same reason explained in Paragraph 12 above.

15. Claim 221 is allowed. None of the cited prior arts teaches or suggests the method of present claim 221 for forming several individual domains of chemically selective sorbent films on a single substrate.

Response to Arguments

16. Applicants argue that by incorporating into present claims 1, 48, 103, and 149 the recitations "*leaving the chemically selective sorbent film in place on the substrate for subsequent use to selectively absorb a first chemical species to which the film is exposed*" and "*at least one of the first and second precursor molecules is selected based upon its having a chemically interactive property that is retained after the hydrosilylation reactions, and that provides to the chemically selective sorbent film a functionality whereby the film selectively absorbs the first chemical species more than a second chemical species*", the rejections on claims 1, 4, 9-11, 20-24, 43, 46, 103, 106, 147, and 205 over Cavezzan'065, the rejections on claims 2 and 104 over

Cavezzan'065 in view of Oxman'886, and the rejections on claims 48-50, 101, 149-151, 153, 154, 202, and 212 over Cavezzan'065 in view of Oxman'886 and Sachdev'693 are now moot; applicants argue that since in Cavezzan the resist layer will be removed after etching, Cavezzan cannot be found to anticipate present claims because the claims recite "leaving the chemically selective sorbent film in place on the substrate for subsequent use to selectively absorb a first chemical species to which the film is exposed. Also, applicants argue that Cavezzan does not disclose selection of precursor molecules based upon any chemically interactive properties that provide selective sorbent functionality to the resulting film, and thus the reference cannot be found to anticipate a claim that recites selecting a precursor molecule based upon such functionality.

Applicants' such arguments are found to be unpersuasive for the reasons already explained above in Paragraph 5. That is, since the exposed and developed film of Cavezzan is left on the surface of the silicon wafer at least until the etching of the substrate is over, the prior art still teaches present limitation "leaving the chemically selective sorbent film in place on the substrate". The recitation "*for subsequent use to selectively absorb a first chemical species to which the film is exposed;*", has not been given patentable weight because the recitation merely recites the purpose of a process or the intended use of a structure. However, if applicants change the recitation "for subsequent use to selectively absorb a first chemical species to which the film is exposed;" such that it includes an active step instead of an intended use, present rejections will be overcome over Cavezzan. Also, as explained above, the recitation

Art Unit: 1752

"wherein at least one of the first and second precursor molecule is selected based upon its having a chemically interactive property that is retained after the hydrosilylation reactions, and that provides to the chemically selective solvent film a functionality whereby the film selectively absorbs the first chemical species more than a second chemical species" has not been given patentable weight because it merely recites a *reason for choosing* the present first and second precursor molecules. Since Cavezzan teaches present first precursor molecule and present second precursor molecule, it should not matter for the purpose of determining patentability whether those compounds are being chosen by Cavezzan for the same reason or not. Besides, since Cavezzan's polydimethylpolymethylhydrosiloxane copolymer having trimethylsiloxyl end groups teaches present first precursor molecule and Cavezzan's polydimethylsiloxane polymer having dimethylvinylsiloxyl end groups teaches present second precursor molecule, it is the Examiner's position that those compounds were *inherently* selected for the same reason as recited in present claims 1, 48, 103, and 149.

Applicants also argue that by incorporating into present claims 1 and 48 the recitations "*leaving the chemically selective sorbent film in place on the substrate for subsequent use to selectively absorb a first chemical species to which the film is exposed*" and "*at least one of the first and second precursor molecules is selected based upon its having a chemically interactive property that is retained after the hydrosilylation reactions, and that provides to the chemically selective sorbent film a functionality whereby the film selectively absorbs the first chemical species more than a second chemical species*", the rejections on claims 1, 2, 4, 9-11, 20-24, 43, 46, and 205

Art Unit: 1752

over Oxman et al'886 and the rejections on claims 48-50, 101, and 212 over Oxman'886 in view of Murai'718 are now moot because Oxman does not disclose selection of precursor molecules based upon any chemically interactive properties that provide selective sorbent functionality to the resulting composition.

Applicants' such argument is found unpersuasive for the reasons already explained above in Paragraph 6. That is, the recitation "wherein at least one of the first and second precursor molecule is selected *based upon its having a chemically interactive property that is retained after the hydrosilylation reactions, and that provides to the chemically selective solvent film a functionality whereby the film selectively absorbs the first chemical species more than a second chemical species*" has not been given patentable weight because it merely recites a *reason for choosing* the present first and second precursor molecules. Since Oxman teaches present first and second precursor molecules, it should not matter (for the purpose of determining patentability) whether those compounds are being chosen by Oxman for the same reason or not. Besides, since Oxman teaches present first and second precursor molecules, it is the Examiner's position that those compounds were *inherently* selected for the same reason as recited in present claims 1 and 48. It is to be noted that if applicants change the recitation "for subsequent use to selectively absorb a first chemical species to which the film is exposed;" such that it includes an active step instead of an intended use, present rejections will be overcome over Oxman.

For the reasons stated above, the present rejections still stand.

Art Unit: 1752

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sin J. Lee whose telephone number is 571-272-1333. The examiner can normally be reached on Monday-Friday from 9:00 am EST to 5:30 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark F. Huff, can be reached on 571-272-1385. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

S. J. Lee

S. Lee

April 23, 2004

Sin J. Lee

Sin J. Lee

Patent Examiner

Technology Center 1700